PAD5
Product Specifications

15 SEER, PACKAGE AIR CONDITIONING UNITS, 2 − 5 TONS
208/230−1−60, Single Phase



REFRIGERATION CIRCUIT

- Environmentally sound R-410A refrigerant
- Copper tube/aluminum fin condenser and evaporator coils
- Two stage scroll compressors standard on all models
- Dehumidification mode (airflow reduction) on all models

EASY TO INSTALL AND SERVICE

- Installs easily on a rooftop or at ground level
- Easy three-panel accessibility for maintenance and installation
- Easily converts to down discharge applications

BUILT TO LAST

- Hail guard (3/8" spacing) wire grilles standard on PAD5**000K**TP** models (2" spacing wire grilles on non-tin models)
- Direct drive high efficiency ECM blower motor on all models
- Pre-painted steel cabinet
- Vertical condenser fan discharge
- Full perimeter steel base rails
- High and low pressure switches provide added reliability for the compressor
- All models available with optional factory installed tin-coasted copper evaporator coil (These models are identified with letters TP in the 11th and 12th positions in the model number)

ENERGY STAR PARTNER

As an Energy Star® Partner, International Comfort Products has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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AHRI CERTIFIED www.ahridirectory.org

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org .

WARRANTY*

- 5 year No Hassle Replacement limited warranty for models with tin coated copper evaporator coils
- 5 year parts limited warranty (including compressor and coils)
  - With timely registration, an additional 5 year parts limited warranty (including compressor and coils)

*Applies to original purchaser/homeowner, some limitations may apply. See warranty certificate for complete details.

UNIT PERFORMANCE DATA

Model Number	COOLING				Unit Dimensions Height x Width x Depth Inches (mm)	Operating Weight lbs / kg
	Net Capacity BTU/h High / Low Stage	Standard CFM High / Low Stage	S.E.E.R	E.E.R.		
PAD524000K000C	22,600 / 17,600	800 / 600	15.5	11.4	$44^{3}/_{4}$x$48^{3}/_{16}$x$32^{5}/_{8}$ (1137x1224x829)	363 (165)
PAD524000KTP0C	22,600 / 17,600	800 / 600	15.5	11.4	$44^{3}/_{4}$x$48^{3}/_{16}$x$32^{5}/_{8}$ (1137x1224x829)	363 (165)
PAD536000K000C	34,600 / 24,400	1200 / 800	15.0	12.0	$48^{3}/_{4}$x$48^{3}/_{16}$x$44^{1}/_{8}$ (1238x1224x1121)	447 (203)
PAD536000KTP0C	34,600 / 24,400	1200 / 800	15.0	12.0	$48^{3}/_{4}$x$48^{3}/_{16}$x$44^{1}/_{8}$ (1238x1224x1121)	447 (203)
PAD548000K000C	46,000 / 33,400	1600 / 1100	15.0	11.0	$50^{3}/_{4}$x$48^{3}/_{16}$x$44^{1}/_{8}$ (1289x1224x1121)	475 (215)
PAD548000KTP0C	46,000 / 33,400	1600 / 1100	15.0	11.0	$50^{3}/_{4}$x$48^{3}/_{16}$x$44^{1}/_{8}$ (1289x1224x1121)	475 (215)
PAD560000K000C	57,000 / 40,500	1750 / 1200	14.5	11.0	$54^{3}/_{4}$x$48^{3}/_{16}$x$44^{1}/_{8}$ (1391x1224x1121)	526 (239)
PAD560000KTP0C	57,000 / 40,500	1750 / 1200	14.5	11.0	$54^{3}/_{4}$x$48^{3}/_{16}$x$44^{1}/_{8}$ (1391x1224x1121)	526 (239)

MODEL NOMENCLATURE

MODEL SERIES	1	2	3	4	5,6	7,8,9	10	11,12	13	14	15
	P	A	D	5	36	000	K	00	0	C	1

P = Package

A = Air Conditioner

D = Standard

TIER

3 = 13

4 = 14

5 = 15

SEER

24 = 24,000 BTUH = 2 Tons

36 = 36,000 BTUH = 3 Tons

48 = 48,000 BTUH = 4 Tons

60 = 60,000 BTUH = 5 Tons

NOMINAL COOLING CAPACITY

000 = no factory heat

NOMINAL HEATING BTUH (input)

K = 208/230−1−60

VOLTAGE

00 = No options

TP − Tin Plated Evaporator Main Tubes

FACTORY INSTALLED OPTIONS

0 = Standard

FEATURE CODE

Sales Model Digit

Engineering Digit

UNIT SPECIFICATIONS − PAD5				
UNIT SIZE	**PAD524**	**PAD536**	**PAD548**	**PAD560**
NOMINAL COOLING CAPACITY (ton)	2	3	4	5
OPERATING WEIGHT (lb/kg)	363 / 165	447 / 203	475 / 215	526 / 239
COMPRESSOR	Two−Stage Scroll			
REFRIGERANT (R−410A) QUANTITY (lb/kg)	10.1/4.6	9.5/4.3	15.3/6.9	15.8/7.2
REFRIGERANT METERING DEVICE	TXV			
Size	2 Ton	3 Ton	4 Ton	5 Ton
Part Number	EA36YD129	EA36YD139	EA36YD149	EA36YD159
OUTDOOR FAN				
Nominal CFM	2700	2800	3300	3300
Diameter (in./mm)	22/559	22/559	22/559	22/559
Motor HP (RPM)	1/8 (825)	1/8 (825)	1/4 (1100)	1/3 (1110)
OUTDOOR COIL				
Rows...Fins/in	2...21	2...21	2...21	2...21
Face Area (sq. ft.)	13.6	17.5	19.4	23.3
INDOOR COIL				
Rows...Fins/in	3...17	3...17	3...17	4...17
Face Area (sq. ft.)	3.7	4.7	5.7	5.7
INDOOR BLOWER				
Nominal Low Stage Airflow (CFM)	600	800	1100	1200
Nominal High Stage Airflow (CFM)	800	1200	1600	1750
Blower Wheel Size (in. x in.)	10x10	11x10	11x10	11x10
Blower Wheel Size (mm x mm)	254x254	279x254	279x254	279x254
Motor HP (RPM)	1/2	3/4	1	1
HIGH−PRESSURE SWITCH (psig)				
Cutout	670+/−10			
Reset (Auto)	470+/−25			
HIGH−PRESSURE SWITCH 2 (psig)				
(Compressor Solenoid)				
Cutout	565+/−15			
Reset (Auto)	455+/−15			
LOSS−OF−CHARGE/LOW−PRESSURE SWITCH				
(Liquid Line) (psig)				
Cutout	23+/−5			
Reset (Auto)	55+/−5			
RETURN−AIR FILTERS (in.) Throwaway*	20x20x1	24x30x1	24x36x1	24x36x1
RETURN−AIR FILTERS (mm) Throwaway*	508x508x25	610x762x25	610x914x25	610x914x25

* Recommended filter sizes for field−installed air filter grilles mounted on the wall or ceiling of the conditioned structure. Required filter sizes shown are based on the AHRI (Air Conditioning, Heating, and Refrigeration Institute) rated high stage cooling airflow and a maximum face velocity of 300 ft/minute for throwaway filters or 450 ft/minute for permanent filters. Air filter pressure drop for non−standard filters must not exceed .08 inches water column.

Dry Coil Air Delivery* − Horizontal and Downflow Discharge − Unit PAD524−60

Unit (Voltage)	Motor Speed	Wire Color		External Static Pressure (IN. W.C.)								
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
PAD524 (208/230−1−60)	Low [1]	Blue	CFM	659	551	440	335	---	---	---	---	---
	Med-Low	Pink	CFM	726	625	537	407	---	---	---	---	---
	Medium [2]	Red	CFM	907	837	759	679	588	474	343	---	---
	Med-High	Orange	CFM	953	870	807	718	652	528	443	---	---
	High	Black	CFM	1179	1118	1061	996	942	864	794	718	619
PAD536 (208/230−1−60)	Low [1]	Blue	CFM	921	740	448	---	---	---	---	---	---
	Med-Low	Pink	CFM	1019	849	603	479	---	---	---	---	---
	Medium	Red	CFM	1272	1203	1150	1097	1054	996	937	881	841
	Med-High [2]	Orange	CFM	1321	1258	1212	1168	1114	1075	1009	856	904
	High	Black	CFM	1478	1426	1387	1334	1292	1247	1212	1148	1108
PAD548 (208/230−1−60)	Low [1]	Blue	CFM	1201	1159	1101	1062	1004	957	897	852	793
	Med-Low	Pink	CFM	1419	1364	1318	1258	1214	1160	1118	1053	1009
	Medium [2]	Red	CFM	1678	1635	1602	1558	1513	1474	1438	1404	1349
	Med-High	Orange	CFM	1916	1881	1846	1810	1761	1722	1681	1647	1600
	High	Black	CFM	2093	2051	2024	1967	1947	1907	1854	1826	1749
PAD560 (208/230−1−60)	Low [1]	Blue	CFM	1320	1256	1211	1142	1096	1028	973	903	835
	Med-Low	Pink	CFM	1351	1295	1258	1212	1170	1124	1080	1036	992
	Medium [2]	Red	CFM	1824	1782	1742	1711	1673	1641	1607	1563	1490
	Med-High	Orange	CFM	2001	1958	1923	1883	1831	1776	1705	1624	1538
	High	Black	CFM	2292	2238	2158	2049	1935	1840	1732	1635	1513

* Air delivery values are without air filter and are for dry coil (See PAD5 Wet Coil Pressure Drop Table).
[1] Factory−shipped low stage cooling speed
[2] Factory−shipped high stage cooling speed
NOTE: Deduct field−supplied air filter pressure drop and wet coil pressure drop to obtain external static pressure available for ducting.

FILTER PRESSURE DROP

	CFM																		
FILTER SIZE	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**
	Pressure Drop (inches water column)																		
20 x 24 x 1	—	—	—	—	0.09	0.1	0.11	0.13	0.14	0.15	0.16	—	—	—	—	—	—	—	—
24 x 30 x 1	—	—	—	—	—	—	—	0.07	0.08	0.09	0.1	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18
24 x 36 x 1	—	—	—	—	—	—	—	0.06	0.07	0.07	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.14

Minimum Filter Requirements:
20 x 24 x 1 = PAD524
24 x 30 x 1 = PAD536
24 x 36 x 1 = PAD548, PAD560

WET COIL PRESSURE DROP (in wc)

Unit Size	STANDARD CFM (SCFM)															
	600	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**
24	0.005	0.007	0.010	0.012	0.015	–	–	–	–	–	–	–	–	–	–	–
36	–	–	–	0.019	0.023	0.027	0.032	0.037	0.042	0.047	–	–	–	–	–	–
48	–	–	–	–	–	–	0.027	0.032	0.036	0.041	0.046	0.052	0.057	0.063	0.068	–
60	–	–	–	–	–	–	–	–	–	0.029	0.032	0.036	0.040	0.045	0.049	0.053

Electric Heat Pressure Drop Table (in wc) − Small Cabinet: 24

CFM	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**
5kw	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.07
7.2 kw	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.07	0.08	0.09
10 kw	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.07	0.09	0.10	0.11
15 kw	0.00	0.00	0.00	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18

Electric Heat Pressure Drop Table (in wc) − Large Cabinet 36−60

CFM	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**	**2400**	**2500**
5kw	0.00	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12
7.2 kw	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
10 kw	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
15 kw	0.00	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15
20 kw	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16

ELECTRICAL DATA

Unit	Nominal V–PH–HZ	Voltage Range		Compressor		OFM	IFM	Electric Heat		Single Point Power Supply	
		Min.	Max.	RLA	LRA	FLA	FLA	Nominal kW 208v/230v	FLA 208v/230v	MCA 208v/230v	MOCP 208v/230v
PAD524	208/230–1–60	187	253	10.3	52	0.9	4.3	–/–	–/–	18.0/18.0	25/25
								3.8/5.0	18.1/20.8	27.9/31.4	30/35
								5.4/7.2	26.0/30.0	37.9/42.9	40/45
								7.5/10.0	36.1/41.7	50.5/57.5	60/60
PAD536	208/230–1–60	187	253	16.7	82	0.9	6.8	–/–	–/–	28.5/28.2	45/45
								3.8/5.0	18.1/20.8	31.1/34.5	45/45
								5.4/7.2	26.0/30.0	41.0/46.0	45/50
								7.5/10.0	36.1/41.7	53.6/60.6	60/70
								11.3/15.0	54.2/62.5	76.2/86.6	80/90
PAD548	208/230–1–60	187	253	21.2	96	1.5	6.8	–/–	–/–	34.7/34.7	50/50
								3.8/5.0	18.1/20.8	34.7/34.7	50/50
								5.4/7.2	26.0/30.0	41.0/46.0	50/50
								7.5/10.0	36.1/41.7	53.6/60.6	60/70
								11.3/15.0	54.2/62.5	76.2/86.6	80/90
								15.0/20.0	72.2/83.3	98.8/112.7	100/125
PAD560	208/230–1–60	187	253	25.6	118	1.9	9.1	–/–	–/–	43.1/43.1	60/60
								3.8/5.0	18.1/20.8	43.1/43.1	60/60
								5.4/7.2	26.0/30.0	43.9/48.9	60/60
								7.5/10.0	36.1/41.7	56.5/63.5	60/70
								11.3/15.0	54.2/62.5	79.1/89.5	80/90
								15.0/20.0	72.2/83.3	101.6/115.5	110/125

LEGEND
FLA = Full Load Amps
LRA = Locked Rotor Amps
MCA = Minimum Circuit Ampacity
MOCP = Maximum Overcurrent Protection
RLA = Rated Load Amps

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1. In compliance with NEC (National Electrical Code) requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be Power Supply fuse. The CGA (Canadian Gas Association) units may be fuse or circuit breaker.
2. Minimum wire size is based on 60 C copper wire. If other than 60 C wire is used, or if length exceeds wire length in table, determine size from NEC.

PAD524 EXTENDED COOLING PERFORMANCE − HIGH COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
700	57	21.77	21.77	1.61	20.88	20.88	1.79	19.95	19.95	2.00	18.94	18.94	2.23	17.86	17.86	2.48	16.66	16.66	2.77
	62	22.40	18.69	1.61	21.29	18.21	1.80	20.13	17.70	2.00	18.95	18.95	2.23	17.86	17.86	2.48	16.66	16.66	2.77
	63	22.85	15.18	1.62	21.71	14.70	1.80	20.52	14.21	2.01	19.25	13.70	2.23	17.90	13.16	2.48	16.42	12.58	2.77
	67	24.66	15.72	1.64	23.44	15.24	1.83	22.15	14.75	2.03	20.79	14.24	2.26	19.34	13.70	2.51	17.74	13.12	2.79
	72	27.16	12.75	1.67	25.83	12.28	1.86	24.42	11.80	2.06	22.94	11.29	2.29	21.33	10.76	2.54	19.57	10.18	2.83
800	57	22.76	22.76	1.64	21.81	21.81	1.82	20.81	20.81	2.03	19.74	19.74	2.26	18.58	18.58	2.51	17.29	17.29	2.80
	62	22.97	20.16	1.64	21.84	21.76	1.82	20.81	20.81	2.03	19.74	19.74	2.26	18.58	18.58	2.51	17.29	17.29	2.80
	63	23.39	16.20	1.64	22.19	15.71	1.83	20.94	15.21	2.03	19.62	14.69	2.26	18.22	14.14	2.51	16.69	13.54	2.79
	67	25.22	16.81	1.67	23.94	16.32	1.85	22.60	15.82	2.05	21.18	15.30	2.28	19.67	14.74	2.53	18.01	14.14	2.82
	72	27.77	13.43	1.70	26.37	12.96	1.88	24.90	12.48	2.09	23.35	11.95	2.31	21.66	11.41	2.57	20.60	11.05	2.57

PAD524 EXTENDED COOLING PERFORMANCE − LOW COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
525	57	16.65	16.65	1.05	15.95	15.95	1.20	15.21	15.21	1.37	14.40	14.40	1.57	13.52	13.52	1.80	12.55	12.55	2.07
	62	17.20	14.47	1.06	16.29	14.07	1.21	15.34	13.65	1.37	14.40	14.40	1.57	13.52	13.52	1.80	12.55	12.55	2.07
	63	17.61	11.75	1.06	16.69	11.36	1.21	15.70	10.96	1.38	14.64	10.53	1.57	13.50	10.07	1.80	12.27	9.58	2.06
	67	19.23	12.26	1.08	18.23	11.87	1.22	17.18	11.47	1.39	16.05	11.03	1.58	14.83	10.58	1.81	13.50	10.09	2.07
	72	21.48	10.05	1.09	20.41	9.66	1.24	19.26	9.26	1.41	18.02	8.84	1.60	16.69	8.39	1.83	15.24	7.90	2.09
600	57	17.52	17.52	1.08	16.77	16.77	1.23	15.96	15.96	1.39	15.10	15.10	1.59	14.15	14.15	1.82	13.11	13.11	2.09
	62	17.71	15.66	1.08	16.78	16.75	1.23	15.96	15.96	1.39	15.10	15.10	1.59	14.15	14.15	1.82	13.12	13.12	2.09
	63	18.10	12.58	1.08	17.12	12.18	1.23	16.09	11.76	1.39	14.98	11.32	1.59	13.80	10.85	1.81	12.51	10.35	2.08
	67	19.75	13.14	1.09	18.71	12.74	1.24	17.60	12.32	1.41	16.41	11.88	1.60	15.14	11.41	1.83	13.76	10.91	2.09
	72	22.06	10.61	1.11	20.93	10.21	1.26	19.72	9.80	1.43	18.41	9.36	1.62	17.03	8.91	1.85	15.51	8.41	2.11

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PAD536 EXTENDED COOLING PERFORMANCE − HIGH COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1050	57	33.64	33.64	2.28	32.32	32.32	2.53	30.90	30.90	2.81	29.36	29.36	3.11	27.65	27.65	3.46	25.71	25.71	3.84
	62	34.47	28.72	2.29	32.83	28.00	2.54	31.11	27.24	2.81	29.36	29.36	3.11	27.65	27.65	3.46	25.71	25.71	3.84
	63	35.12	23.25	2.29	33.44	22.56	2.54	31.65	21.83	2.81	29.73	21.07	3.12	27.64	20.25	3.45	25.33	19.35	3.83
	67	37.76	24.04	2.32	35.94	23.34	2.57	34.00	22.61	2.84	31.91	21.83	3.15	29.65	21.00	3.49	27.14	20.10	3.87
	73	42.16	18.41	2.37	40.12	17.73	2.62	37.93	17.01	2.90	35.58	16.24	3.20	33.02	15.43	3.54	30.21	14.53	3.92
1200	57	35.06	35.06	2.32	33.64	33.64	2.58	32.12	32.12	2.85	30.46	30.46	3.16	28.63	28.63	3.50	26.56	26.56	3.89
	62	35.29	30.91	2.33	33.64	33.64	2.58	32.12	32.12	2.85	30.46	30.46	3.16	28.63	28.63	3.50	26.56	26.56	3.89
	63	35.86	24.79	2.33	34.09	24.08	2.58	32.22	23.34	2.85	30.23	22.56	3.15	28.05	21.71	3.49	25.66	20.78	3.87
	67	38.52	25.68	2.36	36.62	24.97	2.61	34.60	24.22	2.88	32.43	23.43	3.19	30.06	22.57	3.53	27.47	21.64	3.90
	73	42.99	19.31	2.41	40.85	18.61	2.66	38.57	17.87	2.93	36.13	17.09	3.24	33.48	16.25	3.58	30.56	15.35	3.96

PAD536 EXTENDED COOLING PERFORMANCE − LOW COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
745	57	23.27	23.27	1.46	22.34	22.34	1.65	21.31	21.31	1.87	20.19	20.19	2.12	18.95	18.95	2.41	17.58	17.58	2.76
	62	23.91	20.06	1.46	22.70	19.54	1.65	21.41	18.97	1.87	20.19	20.19	2.12	18.95	18.95	2.41	17.58	17.58	2.76
	63	24.46	16.28	1.47	23.21	15.77	1.66	21.87	15.23	1.87	20.42	14.65	2.12	18.85	14.03	2.41	17.14	13.36	2.75
	67	26.63	16.96	1.48	25.29	16.45	1.67	23.85	15.90	1.89	22.28	15.32	2.14	20.58	14.69	2.43	18.72	14.02	2.77
	72	29.67	13.86	1.51	28.20	13.35	1.70	26.61	12.81	1.91	24.89	12.23	2.16	23.01	11.60	2.45	20.96	10.93	2.79
850	57	24.45	24.45	1.48	23.43	23.43	1.67	22.33	22.33	1.89	21.11	21.11	2.14	19.80	19.80	2.44	18.32	18.32	2.78
	62	24.61	21.68	1.48	23.43	23.43	1.67	22.33	22.33	1.89	21.12	21.12	2.14	19.80	19.80	2.44	18.32	18.32	2.78
	63	25.11	17.42	1.49	23.80	16.89	1.68	22.39	16.34	1.89	20.88	15.74	2.14	19.24	15.10	2.43	17.46	14.42	2.77
	67	27.33	18.17	1.50	25.92	17.64	1.69	24.40	17.08	1.91	22.76	16.48	2.15	20.99	15.84	2.44	19.06	15.15	2.78
	72	30.44	14.64	1.53	28.89	14.12	1.71	27.21	13.55	1.93	25.40	12.96	2.17	23.45	12.33	2.46	21.30	11.65	2.80

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PAD548 EXTENDED COOLING PERFORMANCE − HIGH COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1400	57	44.39	44.39	3.40	42.70	42.70	3.71	40.87	40.87	4.05	38.88	38.88	4.43	36.67	36.67	4.84	34.16	34.16	5.30
	62	45.43	38.20	3.41	43.33	37.29	3.72	41.11	36.31	4.05	38.87	38.87	4.43	36.67	36.67	4.84	35.30	35.30	4.84
	63	46.29	30.85	3.42	44.11	29.95	3.73	41.79	29.00	4.06	39.28	28.00	4.43	36.54	26.91	4.84	33.51	25.73	5.29
	67	50.04	32.01	3.46	47.71	31.11	3.77	45.21	30.16	4.11	42.50	29.14	4.48	41.00	28.60	4.43	36.24	26.85	5.34
	72	55.24	25.88	3.53	52.68	24.98	3.84	49.93	24.04	4.18	46.96	23.04	4.55	45.43	22.53	4.52	40.04	20.75	5.41
1600	57	46.32	46.32	3.48	44.10	44.10	3.79	42.54	42.54	4.13	40.41	40.41	4.51	38.04	38.04	4.92	36.62	36.62	4.93
	62	46.57	41.09	3.48	44.43	44.43	3.79	42.54	42.54	4.13	41.40	41.40	4.51	38.04	38.04	4.92	36.61	36.61	4.93
	63	47.25	32.81	3.49	44.97	31.89	3.80	42.55	30.92	4.13	39.95	29.90	4.50	37.11	28.80	4.91	33.97	27.59	5.36
	67	51.07	34.10	3.53	48.62	33.18	3.84	46.00	32.20	4.18	43.19	31.17	4.55	40.12	30.06	4.96	38.36	29.43	4.97
	72	56.36	27.17	3.60	53.67	26.25	3.91	50.80	25.29	4.25	47.69	24.26	4.62	44.30	23.15	5.03	42.55	22.59	5.06

PAD548 EXTENDED COOLING PERFORMANCE − LOW COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
965	57	31.49	31.49	2.22	30.30	30.30	2.49	29.02	29.02	2.78	27.63	27.63	3.12	26.10	26.10	3.51	24.40	24.40	3.96
	62	32.49	27.41	2.21	30.96	26.74	2.48	29.34	26.03	2.78	27.64	27.57	3.12	26.10	26.10	3.51	24.40	24.40	3.97
	63	33.19	22.28	2.21	31.62	21.62	2.48	29.95	20.92	2.78	28.14	20.18	3.12	26.19	19.39	3.52	24.04	18.53	3.97
	67	36.14	23.21	2.21	34.45	22.54	2.47	32.65	21.84	2.77	30.72	21.10	3.10	28.62	20.30	3.49	26.31	19.44	3.94
	72	40.19	19.02	2.21	38.34	18.36	2.46	36.37	17.67	2.75	34.25	16.93	3.08	31.95	16.14	3.46	29.40	15.29	3.90
1100	57	33.04	33.04	2.24	31.76	31.76	2.50	30.39	30.39	2.80	28.90	28.90	3.13	27.27	27.27	3.52	25.45	25.45	3.97
	62	33.42	29.57	2.23	31.85	28.86	2.50	30.39	30.39	2.80	28.90	28.90	3.13	27.27	27.27	3.52	25.45	25.45	3.97
	63	34.05	23.76	2.23	32.40	23.08	2.50	30.64	22.37	2.80	28.77	21.61	3.14	26.73	20.81	3.53	24.50	19.92	3.99
	67	37.06	24.78	2.23	35.29	24.10	2.49	33.40	23.38	2.78	31.39	22.62	3.12	29.20	21.81	3.51	26.79	20.93	3.95
	72	41.21	20.03	2.23	39.26	19.35	2.48	37.19	18.64	2.77	34.96	17.88	3.10	32.54	17.07	3.48	29.89	16.19	3.92

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PAD560 EXTENDED COOLING PERFORMANCE − HIGH COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
2000	57	58.24	58.24	4.41	55.10	55.10	4.84	54.80	54.80	4.69	52.40	52.40	5.23	46.70	46.70	6.40	42.90	42.90	7.02
	62	58.46	54.46	4.42	55.79	55.79	4.84	55.36	55.36	4.69	52.73	52.73	5.23	46.94	46.94	6.40	43.20	43.20	7.02
	63	59.23	43.33	4.42	56.27	42.07	4.85	55.68	41.83	4.69	52.48	40.49	5.22	45.80	37.74	6.37	41.56	36.02	6.97
	67	63.56	44.86	4.50	60.35	43.59	4.92	56.88	42.24	5.38	56.62	42.14	5.33	48.97	39.21	6.44	44.37	37.49	7.05
	72	69.55	35.33	4.59	66.01	34.07	5.02	62.20	32.73	5.48	58.07	31.30	5.99	53.51	29.74	6.54	48.46	28.03	7.15
1750	57	56.01	56.01	4.29	53.76	53.76	4.72	51.30	51.30	5.19	50.80	50.80	5.08	45.20	45.20	6.27	41.70	41.70	6.89
	62	57.19	50.62	4.31	54.45	49.37	4.73	51.51	48.01	5.19	50.93	47.74	5.08	45.50	45.50	6.27	41.99	41.99	6.89
	63	58.18	40.75	4.32	55.35	39.51	4.74	52.28	38.20	5.20	51.66	37.95	5.10	45.27	35.27	6.26	41.16	33.59	6.87
	67	62.48	42.11	4.39	59.41	40.86	4.81	57.00	39.90	5.18	55.71	39.39	5.21	48.47	36.58	6.34	44.00	34.88	6.94
	72	68.41	33.69	4.48	65.01	32.46	4.91	61.35	31.14	5.37	57.37	29.72	5.88	52.97	28.19	6.44	48.09	26.53	7.04

PAD560 EXTENDED COOLING PERFORMANCE − LOW COOL

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg F																	
		75 (23.8°C)			85 (29.4°C)			95 (35°C)			105 (40.5°C)			115 (46.1°C)			125 (51.6°C)		
CFM	EWB	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW	Capacity MBtuh		Total System KW
		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens		Total	Sens	
1200	57	39.88	39.88	2.70	38.34	38.34	3.04	36.64	36.64	3.43	34.74	34.74	3.87	31.90	31.90	4.37	29.70	29.70	4.94
	62	40.94	35.96	2.69	39.01	35.09	3.04	36.90	34.14	3.43	34.90	34.90	3.87	32.60	32.60	4.37	30.16	30.16	4.94
	63	41.76	29.14	2.69	39.78	28.27	3.04	37.61	27.34	3.42	35.23	26.33	3.87	32.61	25.22	4.37	29.69	24.04	4.96
	67	45.04	30.17	2.68	42.87	29.29	3.02	40.50	28.35	3.40	37.91	27.31	3.84	35.04	26.21	4.33	31.84	25.00	4.90
	72	49.59	24.40	2.68	47.18	23.52	3.01	44.52	22.56	3.38	41.68	21.55	3.80	38.47	20.43	4.28	34.93	19.21	4.84
1370	57	41.69	41.69	2.72	40.00	40.00	3.07	37.90	37.90	3.45	35.45	35.45	3.89	33.62	33.62	4.38	30.90	30.90	4.95
	62	41.98	38.83	2.72	40.02	40.02	3.07	38.18	38.18	3.45	36.13	36.13	3.89	33.82	33.82	4.38	31.19	31.19	4.95
	63	42.72	31.09	2.72	40.63	30.20	3.07	38.35	29.24	3.45	35.86	28.21	3.89	33.13	27.09	4.40	30.10	25.87	4.98
	67	46.03	32.23	2.72	43.75	31.34	3.05	41.27	30.36	3.43	38.55	29.32	3.86	35.56	28.18	4.36	32.25	26.93	4.92
	72	50.62	25.68	2.71	48.09	24.78	3.04	45.37	23.83	3.41	42.32	22.77	3.83	39.01	21.64	4.31	35.34	20.40	4.86

***** 63°F Ewb is at 75°F entering dry bulb − Tennessee Valley Authority [TVA] rating conditions; all others at 80°F entering dry bulb.

LEGEND: BF — Bypass Factor Ewb — Entering Wet Bulb kW — Total Unit Power Input SHC — Sensible Heat Capacity (x1000 Btuh) TC — Total Capacity (x1000 Btuh) (net)

NOTES:
1. Ratings are net; they account for the effects of the evaporator fan motor power and heat.
2. Direct interpolation is permissible. Do not extrapolate.
3. The following formulas may be used:

$$t_{Ldb} = t_{Edb} - \frac{\text{Sensible Capacity (BTU/h)}}{1.10 \times \text{cfm}}$$

$$h_{Lwb} = h_{Ewb} - \frac{\text{Total Capacity (BTU/h)}}{4.5 \times \text{cfm}}$$

Where: h_{Ewb} = Enthalpy of air entering evaporator coil

t_{Lwb} = Wet bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{Lwb})

4. The SHC is based on 80°F Edb temperature of air entering evaporator coil.
   Below 80°F Edb, subtract (corr factor x cfm) from SHC.
   Above 80°F Edb, add (corr factor x cfm) to SHC. Correction Factor = 1.10 x (1 + BF) x (Edb + 80).

UNIT DIMENSIONS – PAD524

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WT. LB	UNIT WT. KG	UNIT HEIGHT IN/MM "A"	CENTER OF GRAVITY IN/MM X	CENTER OF GRAVITY IN/MM Y	CENTER OF GRAVITY IN/MM Z
24	208/230-1-60	386	175.0	44-3/4 1136.7	20-1/2 520.7	15-3/4 400.1	16-5/8 422.3

UNIT	VOLTAGE	CORNER WEIGHT LB/KG "1"	"2"	"3"	"4"
24	208/230	77.2 35.0	61.7 28.0	92.6 42.0	154.3 70.1

REQUIRED CLEARANCES NO COMBUSTIBLE MATL. INCHES [MM]

TOP OF UNIT	14 [355.6]
DUCT SIDE OF UNIT	20 [508.0]
SIDE OPPOSITE DUCTS	14 [355.6]
BOTTOM OF UNIT	0 [0.0]
ELECTRICAL PANEL	36 [914.4]

NEC. REQUIRED CLEARANCES. INCHES [MM]

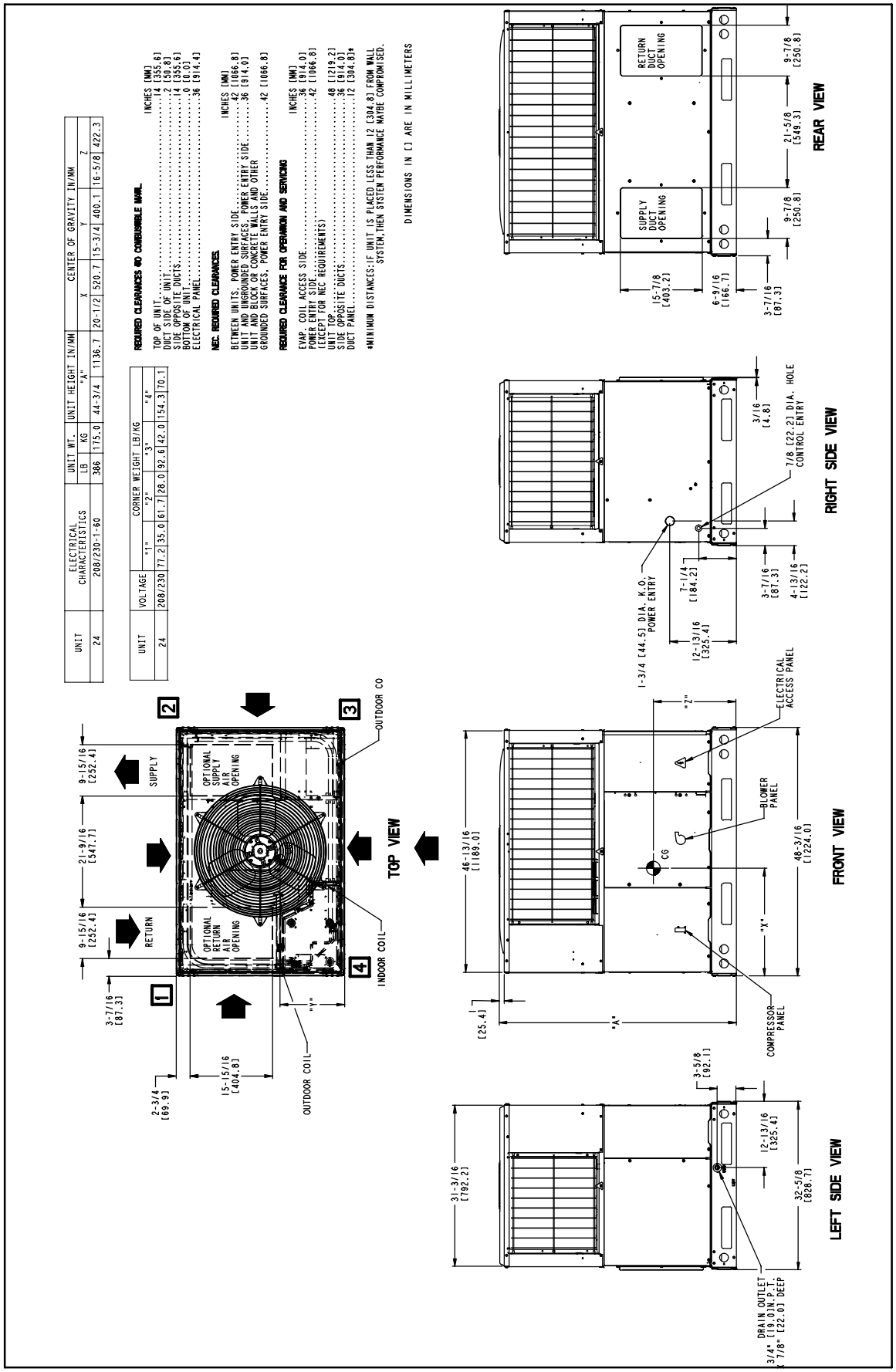
BETWEEN UNITS, POWER ENTRY SIDE	42 [1066.8]
UNIT AND GROUNDED SURFACES, POWER ENTRY SIDE	36 [914.0]
UNIT AND BLOCK OR CONCRETE WALLS, ANY OTHER GROUNDED SURFACES, POWER ENTRY SIDE	42 [1066.8]

REQUIRED CLEARANCE FOR OPERATION AND SERVICING INCHES [MM]

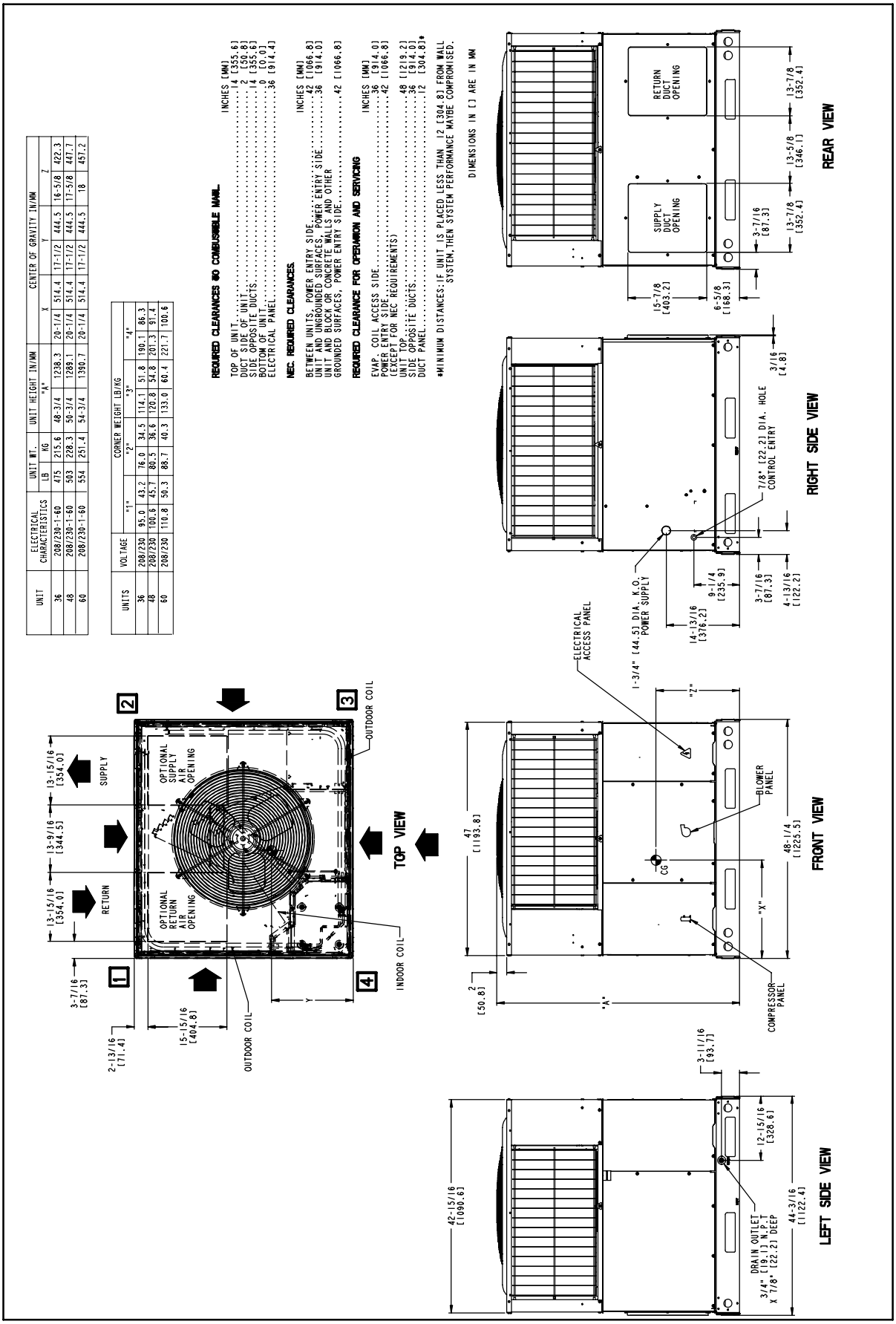
EVAP. COIL ACCESS SIDE	36 [914.0]
POWER ENTRY SIDE (EXCEPT FOR NEC REQUIREMENTS)	42 [1066.8]
UNIT TOP	48 [1219.2]
SIDE OPPOSITE DUCTS	36 [914.4]
DUCT PANEL	12 [304.8]*

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

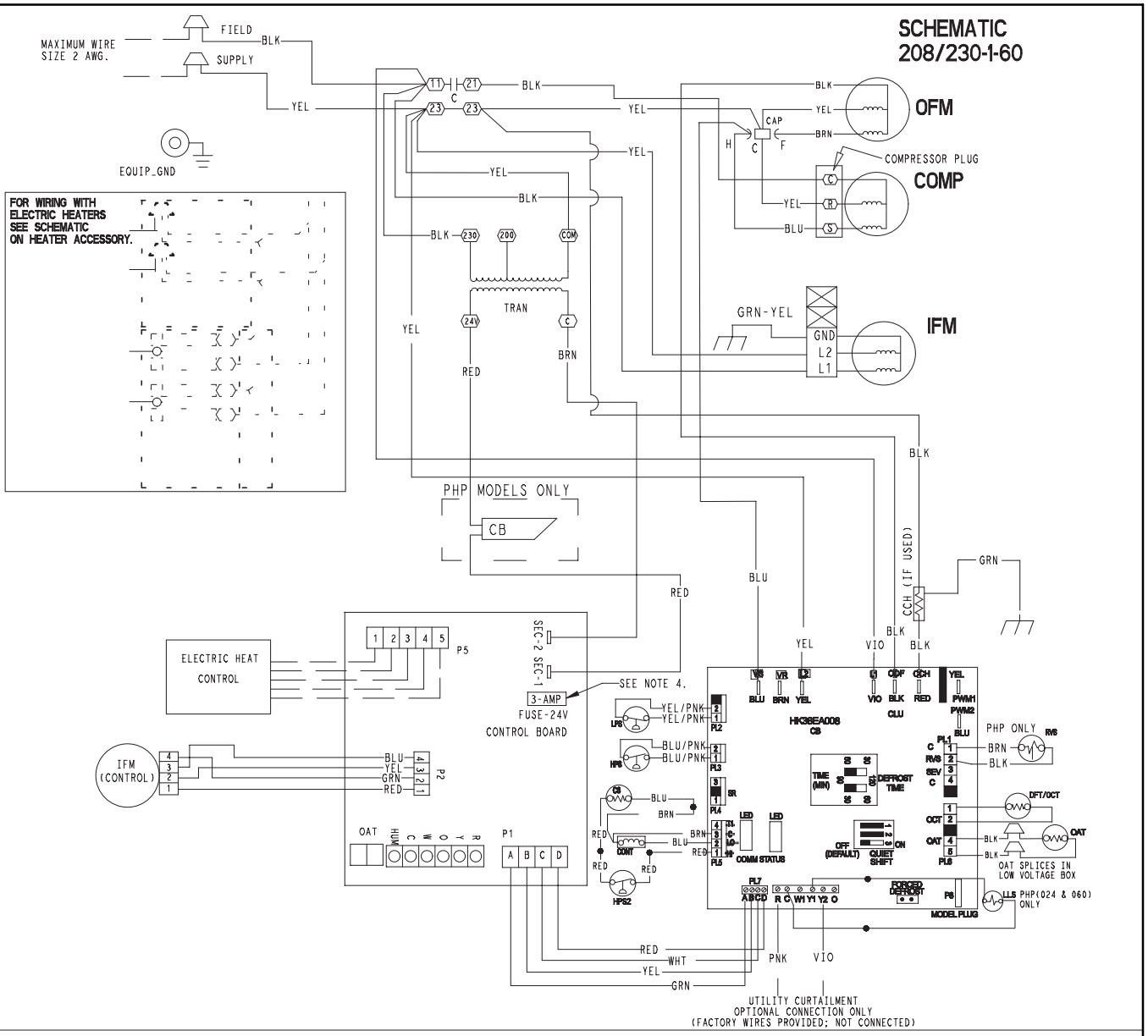
DIMENSIONS IN [ ] ARE IN MILLIMETERS



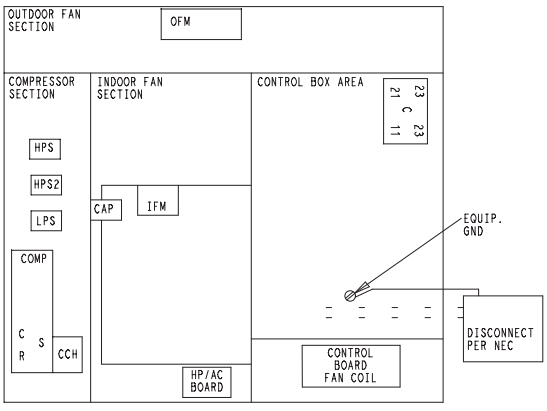
UNIT DIMENSIONS − PAD536 − 60



WIRING SCHEMATIC − PAD5 Single Phase



UNIT COMPONENT ARRANGEMENT



LEGEND

△	FIELD SPLICE	C	CONTACTOR
⬭	TERMINAL (MARKED)	CAP	CAPACITOR
○	TERMINAL (UNMARKED)	CB	CIRCUIT BREAKER
●	SPLICE	CCH	CRANK CASE HEATER
⬠	SPLICE (MARKED)	COMP	COMPRESSOR MOTOR
——	FACTORY WIRING	CONT	CONTACTOR
– –	FIELD CONTROL WIRING	GND	GROUND
——	FIELD POWER WIRING	HPS	HIGH PRESSURE SWITCH
———	ACCESSORY OR OPTIONAL WIRING	HPS2	HIGH PRESSURE SWITCH
		IFM	INDOOR FAN MOTOR
		LLS	LIQUID LINE SOLENOID
		LPS	LOW PRESSURE SWITCH
		OFM	OUTDOOR FAN MOTOR
		TRAN	TRANSFORMER

NOTES:
1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, IT MUST BE REPLACED WITH TYPE 90° C WIRE OR IT'S EQUIVALENT.
2. SEE PRICE PAGES FOR USER INTERFACE AND SUBBASES
3. USE 75 DEGREE COPPER CONDUCTORS F OR FIELD INSTALLATION.
4. THE INDOOR CONTROL BOARD FUSE IS MANUFACTURED BY LITTLEFUSE. THE PART NUMBER IS 257003.

A09310

CONTROLS, OPERATING SEQUENCE

Operating Sequence

Cooling Operation − With a call for first stage cooling, the outdoor fan and low−stage compressor are energized. If low−stage cannot satisfy cooling demand, high−stage is energized by the thermostat. After second stage is satisfied, the unit returns to low−stage operation until first stage is satisfied or until second stage is required again. When both first stage and second stage cooling are satisfied, the compressor will shut off.

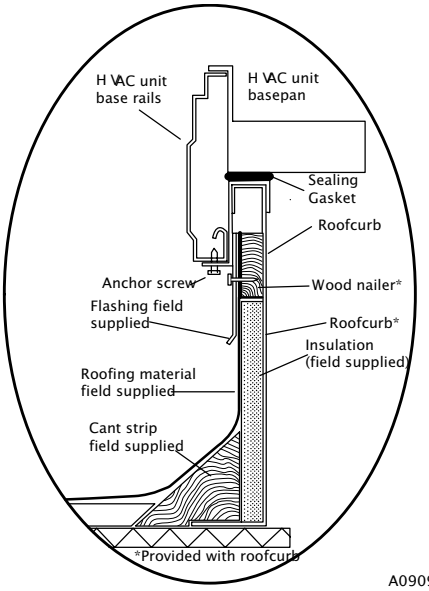
NOTE: When two−stage unit is operating at low stage, system vapor (suction) pressure will be higher than a standard single−stage system or high−stage operation.

NOTE: On units with anti−cycle timer: Once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

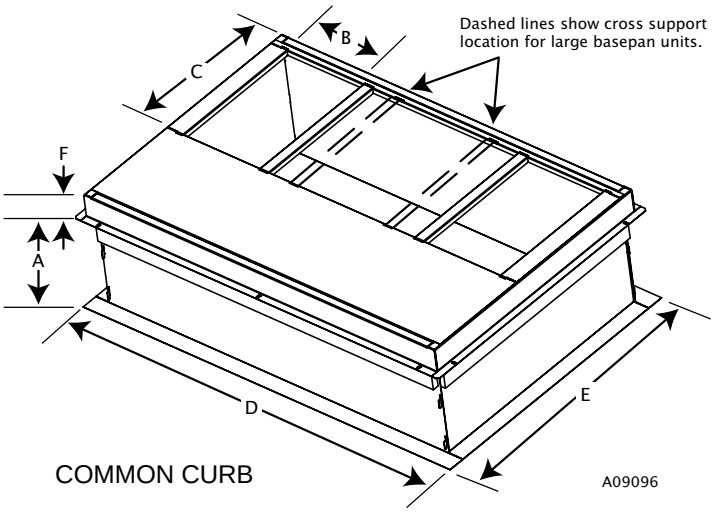
Heating — If accessory electric heaters are installed, on a call for heat, circuit R−W is made through the thermostat contacts. Circuit R−G is made which energizes the IFR. If the heaters are staged, then the thermostat closes a second set of contacts (W2) when second stage is required. When thermostat is satisfied, contacts open, deenergizing the heater relay and the IFR.

ACCESSORIES

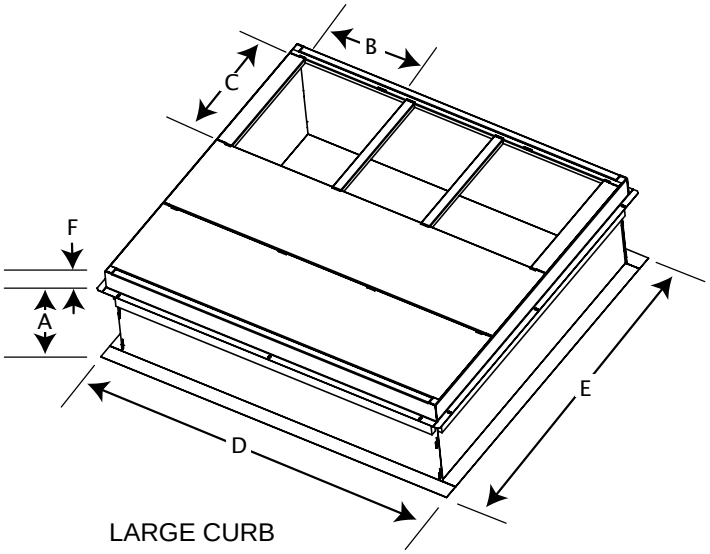
ROOF CURBS



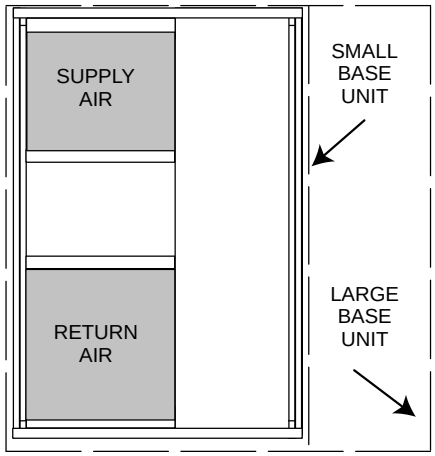
ROOF CURB DETAIL



COMMON CURB



LARGE CURB



UNIT PLACEMENT ON COMMON CURB

SMALL OR LARGE BASE UNIT

UNIT SIZE	CATALOG NUMBER	A IN. (mm)	B (small base) IN. (mm)*	B (large base) IN. (mm)*	C IN. (mm)	D IN. (mm)	E IN. (mm)	F IN. (mm)
Small or Large	CPRFCURB010A00	11 (279)	10 (254)	14 (356)	16 (406)	47.8 (1214)	32.4 (822)	2.7 (69)
	CPRFCURB011A00	14 (356)						
Large	CPRFCURB012A00	11 (279)	14 (356)				43.9 (1116)	
	CPRFCURB013A00	14 (356)						

***** Part Numbers CPRCURB010A00 and CPRCURB011A00 can be used on both small and large basepan units. The cross supports must be located based on whether the unit is a small basepan or a large basepan.

NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied, as required, to unit being installed.
3. Roof curb is made of 16−gauge steel.
4. Attach ductwork to curb (flanges of duct rest on curb).
5. Insulated panels: 1−in. (25.4 mm) thick fiberglass 1 lb. density.

PAD5 ACCESSORIES (Continued)		
Accessory Model Number	**Description**	**Use With**
CURBS		
CPRFCURB010A00	Roof Curb, 11” High	24 − 60
CPRFCURB011A00	Roof Curb, 14” High	24 − 60
CPRFCURB012A00	Roof Curb, 11” High	36 − 60
CPRFCURB013A00	Roof Curb, 14” High	36 − 60
Note: CPRFCURB010A00 AND CPRFCURB011A00 can be used with 36−60 size units with some overhang.		
ADAPTER CURBS*		
CPADCURB001A00	Adapter curb for use with NPRFCURB006A00 & NPRFCURB007A00	24
CPADCURB002A00	Adapter curb for use with NPRFCURB008A00 & NPRFCURB009A00	36 − 60
* Can also be used when replacing other manufacturer’s older generation units that contain a composite base without a metal base rail.		
CONCENTRIC ADAPTERS − (Use with curb only)		
NPCONADP001A00	For 18” round duct (use with curbs CPRFCURB010A00, CPRFCURB011A00)	Small Curb
NPCONADP002A00	For 18” round duct (use with curbs CPRFCURB012A00, CPRFCURB013A00)	Large Curb
CONCENTRIC DIFFUSERS − (Ceiling or under roof)		
AXB020CSA*	Step Down Diffuser − Fits 2’ x 4’ Ceiling Grid (16” round collars for flex conn.)	24 − 42
AXB020CFA*	Flush Mount Diffuser − Fits 2’ x 4’ Ceiling Grid (16” round collars for flex conn.)	24 − 42
AXB030CSA	Step Down Diffuser − Fits 2’ x 4’ Ceiling Grid (18” round collars for flex conn.)	24 − 60
AXB030CFA	Flush Mount Diffuser − Fits 2’ x 4’ Ceiling Grid (18” round collars for flex conn.)	24 − 60
* A field supplied 18” to 16” round reducer required when used with NP concentric adaptor		
DAMPERS		
CPMANDPR007A00	Manual Outside Air Damper − (Includes filter rack and 1” filter, same as CPFILTRK kit)	24
CPMANDPR008A00		36
CPMANDPR009A00		48, 60
INTERNAL FILTER RACKS		
CPFILTRK007A00	Internal Filter Rack (includes 1−inch filters)	24
CPFILTRK008A00		36
CPFILTRK009A00		48, 60
LOW AMBIENT, ANTI−CYCLE TIMER, COMPRESSOR START ASSIST		
CPLOWAMB001A00	Low Ambient Control − enables cooling system to operate down to 0 Deg. F by cycling condenser fan on and off.	ALL
NRTIMEGD001A00	Five Minute Compressor Delay	ALL
CPHSTART002A00	PTC Compressor Start Assist Kit	ALL
HAIL GUARDS / COIL PROTECTION (Factory installed on PAD000K<u>TP</u> models)**		
NAPA00701GR	3/8” spacing dense wire grilles	24
NAPA01001GR	3/8” spacing dense wire grilles	36
NAPA01101GR	3/8” spacing dense wire grilles	48
NAPA01301GR	3/8” spacing dense wire grilles	60

ELECTRIC HEATER USAGE, 208/230−1−60

Electric Heater Model Number	Nominal Capacity (kW)	Fuses	Used With PAD5 Model Sizes			
			24	36	48	60
EHNA05K0N	5.0	0	✓	✓	✓	✓
EHNA05K4F	5.0	4	✓	✓	✓	✓
EHNA07K0N	7.5	0	✓	✓	✓	✓
EHNA07K4F	7.5	4	✓	✓	✓	✓
EHNA10K0N	10.0	0	✓	✓		
EHNA10K4F	10.0	4	✓	✓	✓	✓
EHNA15K4F	15.0	4		✓		
EHNA15K6F	15.0	6		✓	✓	✓
EHNA20K6F	20.0	6			✓	✓

DUAL POINT WIRING KIT		
CPDUALPT001A00	Dual Point Wiring kit, 5−20kW Heaters	ALL
DUCT TRANSITIONS		
NPDUCFLG002A00	Square to Round (1 set of 2, use with horizontal duct flanges only)	24−48